

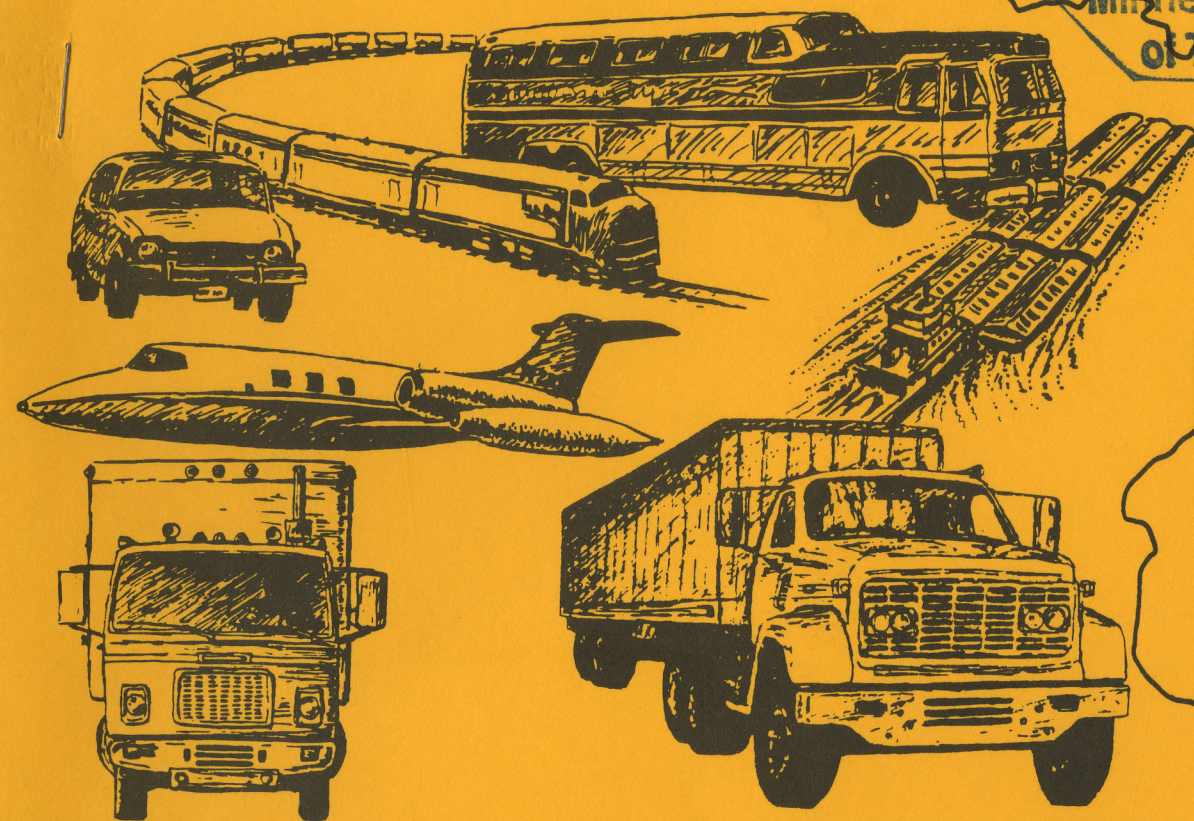


Transportation Analysis

TA-M351

C.S.A.H. 18 From T.H. 494 to T.H. 101

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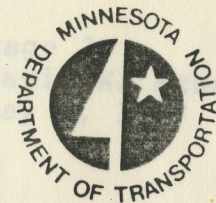


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PREPARED BY
THE MINNESOTA DEPARTMENT OF TRANSPORTATION
PROGRAM MANAGEMENT DIVISION
TRAFFIC FORECASTS SECTION







Minnesota Department of Transportation
Transportation Building, St. Paul, MN 55155

May 1, 1987

Phone 296-0217

David W. Schmidt, P.E.
Planning and Programming
Hennepin County
Department of Transportation
320 Washington Avenue South
Hopkins, Minnesota 55343

Dear Mr. Schmidt:

This report is in response to your request for Average Weekday Traffic and peak hour volumes (AM and PM) in the year 2010 on CSAH 18 from TH 494 to TH 101.

Projected year 2010 AWDT and peak hour (AM and PM) volumes are presented in schematic form for proposed CSAH 18 from TH 494 to TH 101 (Shakopee Bypass) on Figures 1 through 4. Turning movement volumes are shown on Figures 1 through 4 at CSAH 18 and the following intersections (interchanges): TH 494 (including North and South Frontage Roads), Anderson Lakes Parkway-Amsden Lake Road, CSAH 1 (102nd), CSAH 1 (108th) - Riverview Road, existing TH 101, and TH 101 (Shakopee Bypass).

Volumes shown are based on the following data sources:

1. The latest Metropolitan Council - Mn/DOT year 2010 computer traffic assignment of AWDT and PM peak hour volumes to the year 2000 road network (2010/F2000).
2. Mn/DOT report TA-M346: CSAH 1 from Nesbitt to Yukon Avenues prepared May 20, 1986 for the Hennepin County Department of Transportation.
3. Mn/DOT report TA-M340 (Alternate 4): TH 101/169 and the Shakopee Bypass from TH 41 to CSAH 18 prepared October 1, 1986 for District 5.
4. Loaded link and tree (zone) analysis of the 2010 AWDT movements assigned to the year 2000 road network (2010/F2000) for the links and zones which would impact CSAH 18 between TH 494 and TH 101 (Shakopee Bypass).
5. Mn/DOT "current" and historical counts of Average Daily Traffic (ADT) and peak hour volumes (AM and PM) on CSAH 18.

6. Recent (1983 and 1985) ADT counts taken by the cities of Bloomington and Eden Prairie.
7. Extensive 16 hour (6 AM to 10 PM) turning movement counts taken in April and May of 1985 by the Hennepin County Department of Transportation at the following intersections (interchanges) with CSAH 18: TH 494 North Frontage Road and the westbound off and on ramps, TH 494 South Frontage Road and the eastbound off and on ramps, West 78th Street, and Highwood Drive.
8. Turning movement counts (16 hour) taken in May of 1983 at the CSAH 18 - CSAH 1, 102nd Street intersection by the Hennepin County Department of Transportation.
9. Comparative volumes taken on CSAH 18 just north of the Bloomington Ferry Bridge in August of 1984 and 1985 which demonstrate the impact of the Canterbury Downs Racetrack (which opened in late June of 1985) on the existing river bridge. These counts were also taken by the Hennepin County Department of Transportation.

The year 2000 road network (F2000) contained the following major roads which if they are not built by the year 2010 could significantly affect the projected year 2010 loadings on CSAH 18 as presented in this report.

1. TH 101 (Shakopee Bypass) from TH 169 just north of junction TH 41 to existing TH 101 just east of proposed CSAH 18.
2. TH 212 Freeway from TH 5 just east of CSAH 4 to existing TH 212 west of Chaska.

For this report, there is access between CSAH 18 and the following minor routes: West 78th Street, Highwood Drive, Timber Trail, Bloomington Ferry Road, Ensign Avenue, Linden Drive, and Franlo Road. If these access points are closed the enclosed volume loadings should be modified somewhat to reflect this change of access.

The projected volumes shown on Figure 1 indicate that severe congestion may occur during both the AM and PM peak hours prior to the year 2010 in the CSAH 18-TH 494 interchange area - given the existing interchange configuration. The turning counts taken by Hennepin County in April and May of 1985 indicate that some congestion during the AM and PM peak hours is a problem.

In addition, the projected volumes shown on Figure 4 for the southbound to eastbound and the westbound to northbound movements at CSAH 18 - existing TH 101 interchange and the southbound to westbound and the eastbound to northbound movements at CSAH 18 - TH 101 (Shakopee Bypass) interchange are significant and may cause some congestion by the year 2010.

If I may be of further assistance to you please contact me at 296-0217.

Sincerely,

George M. Cepress
George M. Cepress
State Traffic Forecast Engineer

29600 00900 31400 20000 24300 34100 31000 25500
29500 36100 30000 30000 30000 30000 30000 30000

FIGURE 1

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CSAH 18 - TH 101 TO TH 101

LEGEND

2000-2010 ADPT

DOA - AM PEAK HOUR

DOA - PM PEAK HOUR

Recent (1983 and 1985) ADT counts taken by the cities of Bloomington and Eden Prairie.

Extensive 16 hour (6 AM to 10 PM) turning movement counts taken in April and May of 1985 by the Hennepin County Department of Transportation at the following intersections (interchanges) with CSAH 18: TH 101 North Frontage Road and the westbound off and on ramps, TH 101 South Frontage Road and the eastbound off and on ramps, West 78th Street, and Highway Drive.

Turning movement counts (16 hour) taken in May of 1983 at the CSAH 18 - CSAH 1, 101st Street intersection by the Hennepin County Department of Transportation.

Comparative volumes taken on CSAH 18 just north of the Bloomington Ferry Bridge in August of 1984 and 1985 which demonstrate the impact of the Canterbury Downs Race track (which opened in late June of 1985) on the existing river bridge. These counts were also taken by the Hennepin County Department of Transportation.

The year 2000 road network (23000) contained the following major roads which if they are not built by the year 2010 could significantly affect the projected year 2010 loadings on CSAH 18 as presented in this report.

1. TH 101 (Shakopee Bypass) from TH 101 just north of junction TH 41 to existing TH 101 just east of proposed CSAH 18.

2. TH 212 Freeway from TH 5 just east of CSAH 4 to existing TH 212 west of Chaska.

For this report, there is access between CSAH 18 and the following minor routes: West 78th Street, Highway Drive, Timber Trail, Bloomington Ferry Road, Engin Avenue, Linden Drive, and Franjo Road. If these access points are closed the enclosed volume loadings should be modified somewhat to reflect this change of access.

The projected volumes shown on Figure 1 indicate that severe congestion may occur during both the AM and PM peak hours prior to the year 2010 in the CSAH 18 - TH 101 interchange area - given the existing interchange configuration. The turning counts taken by Hennepin County in April and May of 1985 indicate that some congestion during the AM and PM peak hours is a problem.

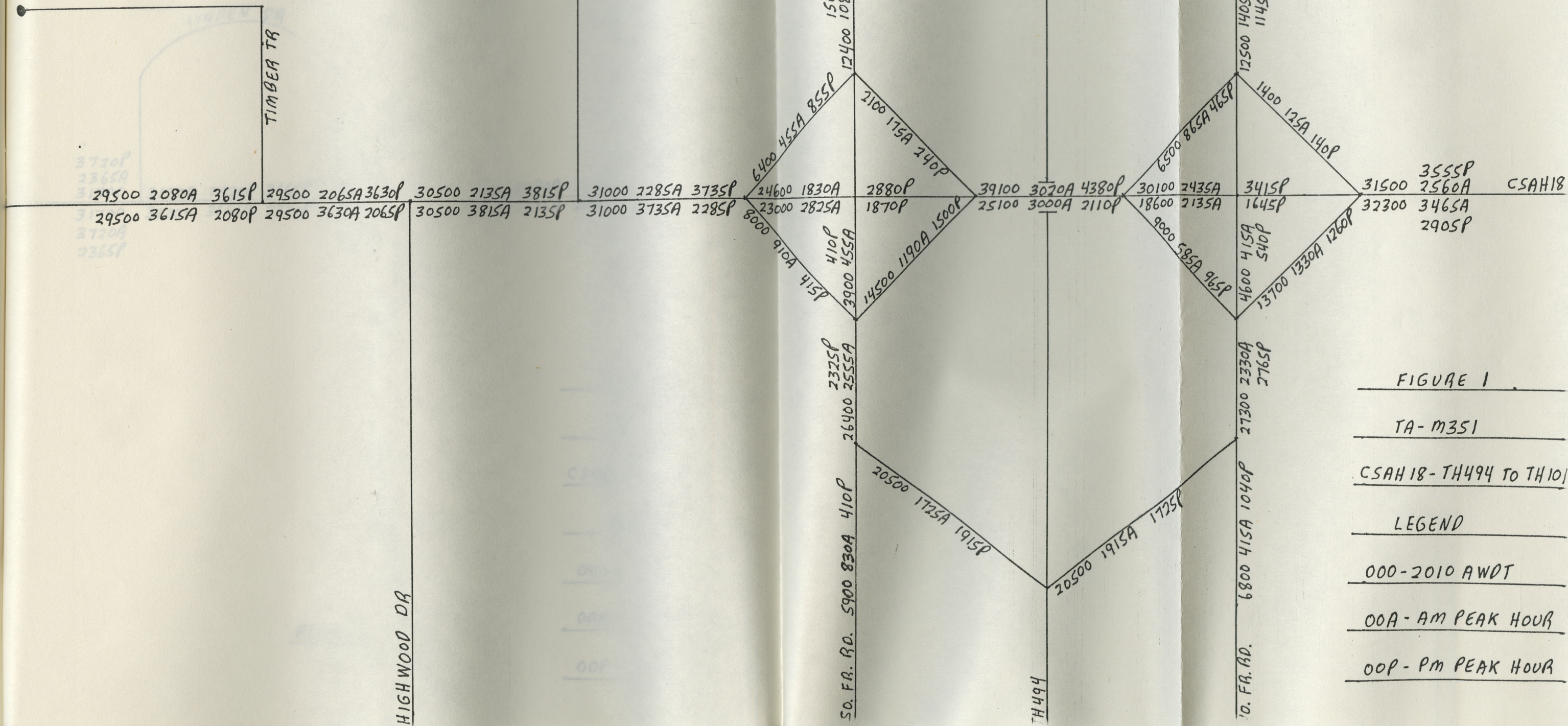
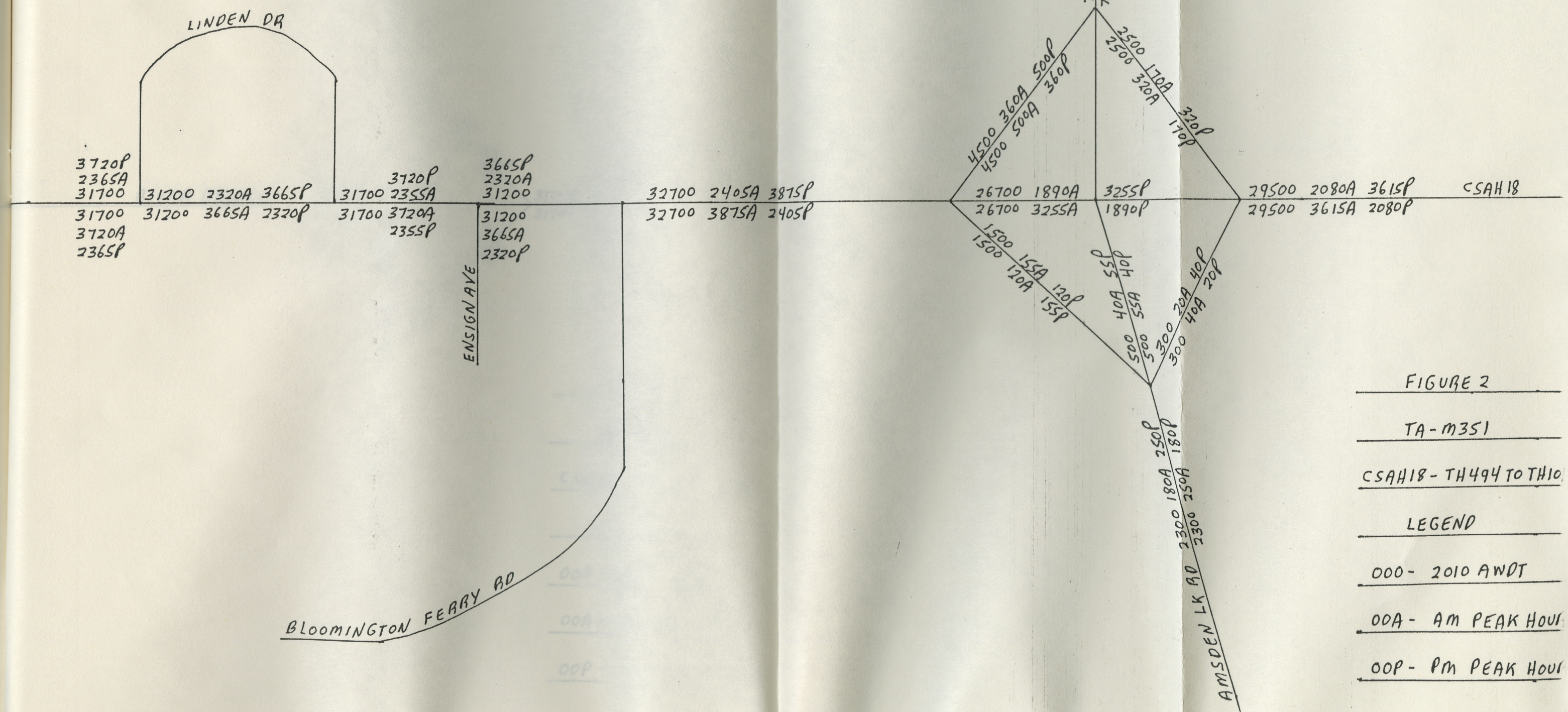
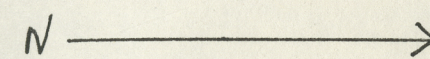


FIGURE 1

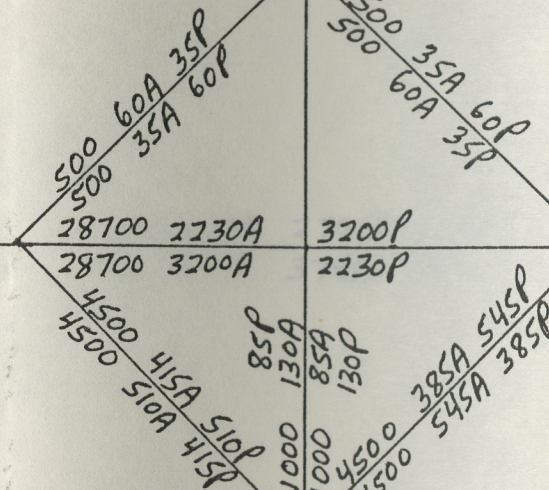
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CSAH18-TH494 TO TH101



RIVER BRIDGE

3745P
2705A
33700
33700
3745A
2705P



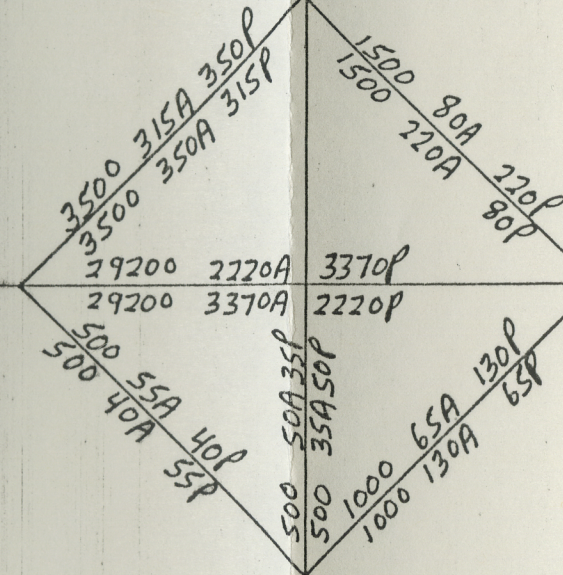
108TH-CSAH 1 1000 1025A 1045P
1000 1045A 1025P

RIVERVIEW AD 2000 250A 155P
2000 155A 250P

33700 2650A 3805P
33700 3805A 2650P

33200 2590A 3760P
33200 3760A 2590P

FRANLO



102ND 2000 155A 220P
2000 220A 155P

CSAH 1 5500 585A 465P
5500 465A 585P

31700 2365A
31700 3720A
2365P

CSAH 18

N →

FIGURE 3

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CSAH 18 - TH 494 TO TH 10

LEGEND

000 - 2010 AWD

00A - AM PEAK HOUR

00P - PM PEAK HOUR

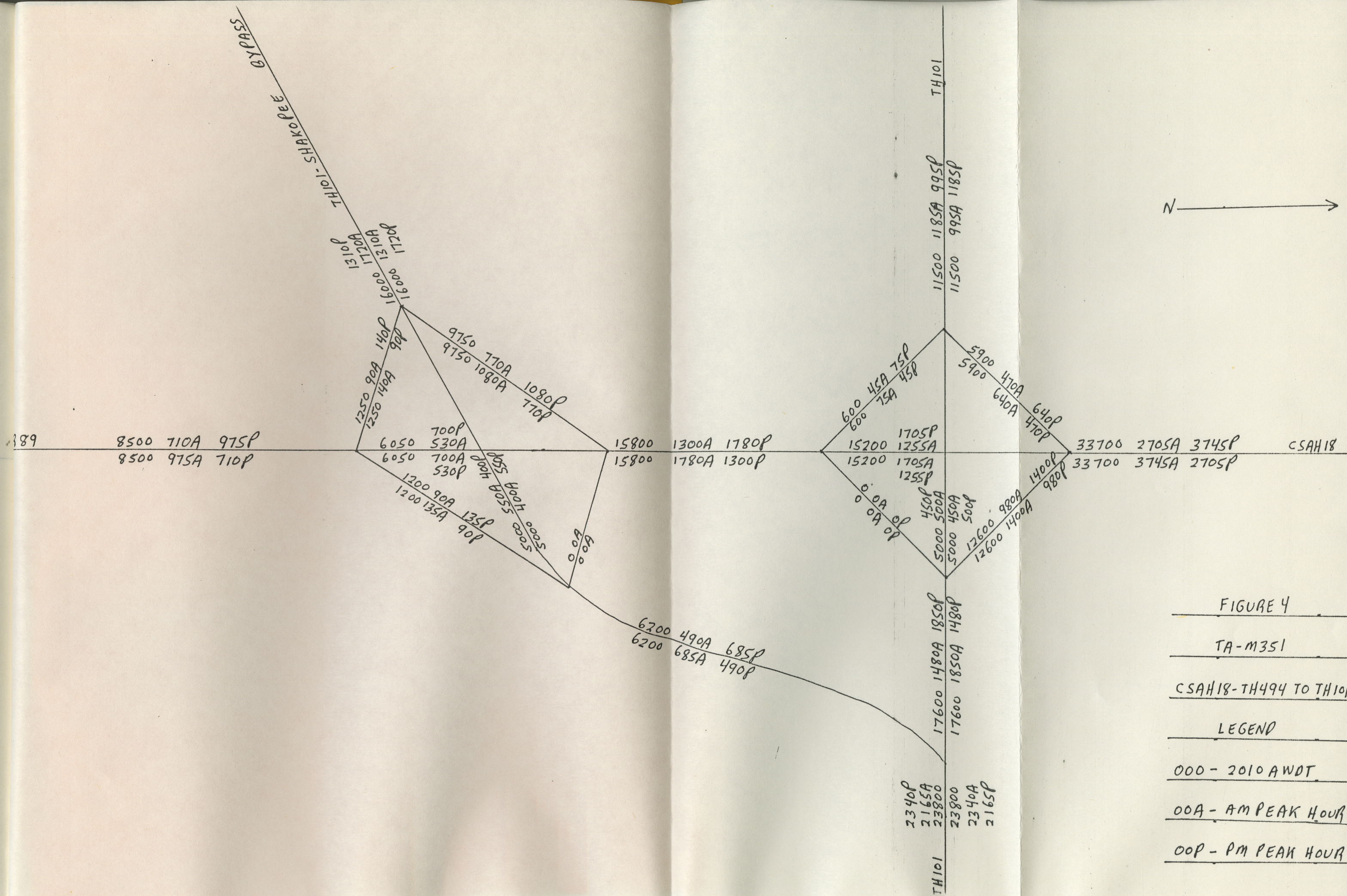


FIGURE 4

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CSAH18-TH494 TO TH101

LEGEND

OOO - 2010 AWDT

OOA - AM PEAK HOUR

OOP - PM PEAK HOUR